

Amendments to the Drawings

Please replace FIGURE 7 with the following attached replacement sheet, labeled
“Replacement Sheet.”

FIGURE 7 has been amended and replaced to correct a typographical error,
wherein the reference number 708B for step “PERFORM H2 PLASMA TREATMENT”
has been replaced with the reference number 708A.

Remarks/Arguments

Applicants wish to thank the Examiner for the careful review of the claims, specification and drawings, as well as for the allowance of claims 12, 21-23, 32, and 41-44.

In response to the Office Action mailed June 7, 2005, independent claims 1, 13, 26, and 36 have been amended.

Dependent claims 22, 33, and 42-44 have also been amended.

Claims 12, 21, 23, 32, and 41 have been canceled.

Claims 46-48 have been withdrawn.

Claims 49-59 have been added.

After entry of this amendment, claims 1-11, 13-20, 22, 24-31, 33-40, 42-45, and 49-59 are pending.

It is respectfully submitted that each and every feature recited in the amended drawing and/or amended claims are fully supported in the specification as filed. No new matter has been added.

IDS Issue

Applicants respectfully note that the Examiner may have inadvertently not considered a document listed on Form 1449 that was previously submitted. To avoid any inference that the gap in the line drawn through the "Other Document" section of Applicant's Form 1449 submitted on April 21, 2005 may indicate that the Examiner did not consider the reference "PCT International Search Report, PCT/US02/21863" Applicants are resubmitting that document herewith again in the attached Form 1449. No fees should be due since this is only a resubmission. However, the Examiner is authorized to charge any fees that may be due to the deposit account noted below.

Also, although Office Action cited Wang et al. (US 5,527,968), Applicants respectfully believe that a typographical error may have inadvertently occurred and that

the Office Action may have meant to cite Wang et al. (US 6,527,968) since Wang et al. (US 5,527,968) is not valid. Moreover, even though Wang et al. (US 6,527,968) was not listed on the Notice of References Cited, Applicants respectfully believe that the cited art was inadvertently not included since the Examiner referred to Wang et al. (US 6,527,968) in the Office Action.

Further, Applicants have identified additional documents that may be of interest to the Examiner as a result of the Examiner's finding of a potential double-patenting issue with respect to co-pending Application No. 10/623,018. These documents are from co-pending applications 10/623,018 and 10/623,017.

Remarks Regarding The Drawing Amendment

FIGURE 7 has been amended and replaced to correct a typographical error, wherein the reference number 708B for step "PERFORM H2 PLASMA TREATMENT" has been replaced with the reference number 708A.

The change clarifies the drawing and renders the drawing conformant to the textual disclosure as filed and adds no new matter.

Rejections under 35 USC 103(a)

The Office Action rejected claims 1-11, 13-20, 46 under 35 USC 103(a) as being unpatentable over Olsen et al. (US 6,528,426) in view of Leon et al. (US 2003/0235996), hereinafter "Olsen" and "Leon." The Office Action rejected claims 26-31, 33, 47 under 35 USC 103(a) as being unpatentable over Olsen in view of Shih et al (US 6,797,627), hereinafter "Shih." The Office Action rejected claims 36-40, 48 under 35 USC 103(a) as being unpatentable over Olsen in view of Aoyama et al. (US 2005/0014667), hereinafter "Aoyama." The Office Action rejected claims 45 under 35 USC 103(a) as being unpatentable over Olsen and Aoyama in view of Kirkpatrick et al. (US 6,861,348),

hereinafter "Kirkpatrick." The Office Action rejected claims 24, 25, 34, 35 under 35 USC 103(a) as being unpatentable over Olsen/Leon or Olsen/Shih in view of Wang et al. (US 5,527,968), hereinafter "Wang." The Office Action cited Luo et al. (2002/0005392), hereinafter "Luo," to show prior art.

As mentioned above, Applicants respectfully believe that a typographical error may have inadvertently occurred and that the Office Action may have meant to cite Wang et al. (US 6,527,968) and not Wang et al. (US 5,527,968).

Claims 1-12

Applicants would like to thank the Examiner for the indication of allowable matters in claim 12.

Applicants hereby incorporate the limitation of allowed claim 12 (the de-ionized water rinse step, which is one of the two alternative limitations in claim 12) into independent claim 1. Claim 12 is hereby canceled.

Accordingly, amended claim 1 should now be allowed. Furthermore, the pending claims that depend from amended claim 1 (i.e., claims 2-11) should also be patentable due to their dependence from the patentable parent claim. Alternatively or additionally, these claims 2-11 are novel, nonobvious, and patentable due to their independent recitations of independently patentable features.

Claims 13-25

Applicants would like to thank the Examiner for the indication of allowable matters in claim 21.

Applicants hereby incorporate the limitation of allowed claim 21 into independent claim 13. Claim 21 is hereby canceled.

Accordingly, amended claim 13 should now be allowed. Furthermore, the pending claims that depend from amended claim 13 (i.e., claims 14-20 and 22-23) should also be patentable due to their dependence from the patentable parent claim.

Alternatively or additionally, these claims 14-20 and 22-23 are novel, nonobvious, and patentable due to their independent recitations of independently patentable features.

As a side matter, Applicants have amended claim 22 to preserve the proper dependency responsive to the cancellation of claim 21.

As a side matter, Applicants have canceled claim 23 responsive to the incorporation of claim 21 into parent pending claim 13.

Claims 26-35

Applicants would like to thank the Examiner for the indication of allowable matters in claim 32.

Applicants hereby incorporate the limitation of allowed claim 32 into independent claim 26. Claim 32 is hereby canceled.

Accordingly, amended claim 26 should now be allowed. Furthermore, the pending claims that depend from claim 26 (i.e., claims 27-31 and 33-35) should also be patentable due to their dependence from the patentable parent claim. Alternatively or additionally, these claims 27-31 and 33-35 are novel, nonobvious, and patentable due to their independent recitations of independently patentable features.

Claims 36-45

Applicants would like to thank the Examiner for the indication of allowable matters in claims 41-44.

Applicants hereby incorporate the limitation of allowed claim 41 into independent claim 36. Claim 41 is hereby canceled.

Accordingly, amended claim 36 should now be allowed. Furthermore, the pending claims that depend from claim 36 (i.e., claims 37-40 and 42-45) should also be patentable due to their dependence from the patentable parent claim. Alternatively or additionally, these claims 37-40 and 42-45 are novel, nonobvious, and patentable due to their independent recitations of independently patentable features.

As a side matter, Applicants have amended claims 42, 43, and 44 to preserve the proper dependency responsive to the cancellation of claim 41.

Claims 46-48

In view of the allowable matters, claims 46-48 have been withdrawn, without conceding to the prior art rejections thereto, in the present application to be potentially pursued in a continuation application contemplated to be filed. This is done to facilitate organizing of Applicant's patents and to more rapidly move this present application forward to issuance.

Newly added claims 49-59

Newly added claim 49 is identical to pending amended claim 1, with one major difference. Whereas pending claim 1 (which the Examiner indicates to be allowable if it incorporates the allowed claim 12) is amended to include one alternative limitation of allowed claim 12 (i.e., the de-ionized water rinse step), newly added claim 49 represents the original claim 1 with the included second alternative limitation of allowed claim 12 (i.e., the HCL dip/de-ionized water rinse step).

Since claim 12, which contains two alternative limitations, is allowable, pending parent claim 1 (which represents the original independent claim 1 and the first alternative limitation added thereto) as well as newly added claim 49 (which represents the original independent claim 1 and the second alternative limitation added thereto) should be allowable.

Dependent claims 50-59 are identical to pending dependent claims 2-11. These claims should therefore be patentable as well.

Objections under 37 CFR 1.75(c) and Rejections under 35 USC 112

The Examiner has objected claim 33 under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. According to the Examiner, claim 33 does not further limit the claim since the de-ionized water rinse has already been mentioned in claim 26. Further, the Examiner has also rejected claim 33 under 35 USC 112 because the limitation "said wet treatment" lacks sufficient antecedent basis.

Applicants have amended claim 33 to address both of these issues by replacing the phrase "performing one of a de-ionized water rinse and a HCl dip/de-ionized water rinse on said substrate prior to said wet treatment" with "performing a HCL solution dip on said substrate prior to said rinse using said rinsing solution that includes said de-ionized water."

Since claim 33 depends from amended claim 26 (which the Examiner already indicates to be allowable if the limitations of allowed claim 32 are incorporated therein), narrower dependent claim 33 should also be allowable. Amended claim 33 is fully supported in the specification at, for example, Figure 7, in particular steps 706A, 706B, and 708B.

It is respectfully requested that the objection and rejection of claim 33 be withdrawn since it has been amended to be in compliant with 37 CFR 1.75(c) and 35 USC 112.

Double Patenting

The Examiner has provisionally rejected claims 26-40, 45, 47 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-26 of co-pending Application No. 10/623,018. Applicants hereby submit a properly executed terminal disclaimer to obviate the provisional rejection based on double patenting. Therefore, it is respectfully requested that the provisional rejections of these claims be withdrawn.

Conclusion

In view of the discussion herein, Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at 408-257-5500.

If any petition is required to facilitate the entry of the present amendment, please consider this communication a petition therefore as well. The Commissioner is authorized to charge any fees beyond the amount enclosed which may be required, or to credit any overpayment, to Deposit Account No. 50-2284 (Order No. LMRX-P019).

Respectfully submitted,

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